



**United States Environmental Protection Agency
Region 9 Laboratory**

**1337 S. 46th Street Building 201
Richmond, CA 94804**

Date: 2/17/2012

Subject: Analytical Testing Results - Project R33911
SDG: 12044A

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
MTS-2

To: Richard Fetzer
US EPA Region 3, Eastern Response Branch
3HS31

Attached are the results from the analysis of samples from the **Dimock Residential Groundwater** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this report:

Dissolved Hydrocarbon Gases by GC



United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Richard Fetzer

Project Number: R33911

Project: Dimock Residential Groundwater

US EPA Region 3, Eastern Response Branch

100 Gypsum Road

Stroudsburg PA, 18360

SDG: 12044A

Reported: 02/17/12 15:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
HW49	1202034-01	Water	02/09/12 14:11	02/11/12 11:15
HW49-P	1202034-02	Water	02/09/12 14:26	02/11/12 11:15
TB35	1202034-03	Water	02/09/12 10:00	02/11/12 11:15
FB14	1202034-04	Water	02/09/12 13:36	02/11/12 11:15
HW44	1202034-05	Water	02/09/12 14:49	02/11/12 11:15
TB36	1202034-06	Water	02/09/12 10:10	02/11/12 11:15
FB15	1202034-07	Water	02/10/12 11:21	02/11/12 11:15
HW36n	1202034-08	Water	02/10/12 10:53	02/11/12 11:15
HW36n-P	1202034-09	Water	02/10/12 11:02	02/11/12 11:15
TB37	1202034-10	Water	02/10/12 07:15	02/11/12 11:15
HW16	1202034-11	Water	02/10/12 11:21	02/11/12 11:15
HW16-P	1202034-12	Water	02/10/12 11:37	02/11/12 11:15
HW16z	1202034-13	Water	02/10/12 11:22	02/11/12 11:15
TB38	1202034-14	Water	02/10/12 07:20	02/11/12 11:15
HW54	1202034-15	Water	02/10/12 14:08	02/11/12 11:15
HW54-P	1202034-16	Water	02/10/12 14:30	02/11/12 11:15
TB39	1202034-17	Water	02/10/12 10:00	02/11/12 11:15

SDG ID 12044A

Small amounts of methane were detected in the method blanks, field blanks and trip blanks. Field sample results are flagged as estimates if they do not exceed levels found in associated blanks by at least five times.

Work Order(s)

1202034



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Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202034-01		Water - Sampled: 02/09/12 14:11							
Sample ID: HW49		Dissolved Gases by RSK-175							
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			113 %	66.4-153%		"	"	"	
Lab ID: 1202034-02		Water - Sampled: 02/09/12 14:26							
Sample ID: HW49-P		Dissolved Gases by RSK-175							
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			114 %	66.4-153%		"	"	"	
Lab ID: 1202034-03		Water - Sampled: 02/09/12 10:00							
Sample ID: TB35		Dissolved Gases by RSK-175							
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	66.4-153%		"	"	"	
Lab ID: 1202034-04		Water - Sampled: 02/09/12 13:36							
Sample ID: FB14		Dissolved Gases by RSK-175							
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			113 %	66.4-153%		"	"	"	
Lab ID: 1202034-05		Water - Sampled: 02/09/12 14:49							
Sample ID: HW44		Qualifiers: B1							
		Dissolved Gases by RSK-175							
Methane		0.9	C1, J	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			115 %	66.4-153%		"	"	"	
Lab ID: 1202034-06		Water - Sampled: 02/09/12 10:10							
Sample ID: TB36		Dissolved Gases by RSK-175							
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene			116 %	66.4-153%		"	"	"	



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Project: Dimock Residential Groundwater

US EPA Region 3, Eastern Response Branch

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Stroudsburg PA, 18360**

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Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202034-06							Water - Sampled: 02/09/12 10:10		
Lab ID: 1202034-07							Water - Sampled: 02/10/12 11:21		
Sample ID: FB15							Dissolved Gases by RSK-175		
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			115 %	66.4-153%		"	"	"	
Lab ID: 1202034-08							Water - Sampled: 02/10/12 10:53		
Sample ID: HW36n							Dissolved Gases by RSK-175		
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			114 %	66.4-153%		"	"	"	
Lab ID: 1202034-09							Water - Sampled: 02/10/12 11:02		
Sample ID: HW36n-P							Dissolved Gases by RSK-175		
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			117 %	66.4-153%		"	"	"	
Lab ID: 1202034-10							Water - Sampled: 02/10/12 07:15		
Sample ID: TB37							Dissolved Gases by RSK-175		
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			119 %	66.4-153%		"	"	"	
Lab ID: 1202034-11							Water - Sampled: 02/10/12 11:21		
Sample ID: HW16							Dissolved Gases by RSK-175		
Methane	RE1	25,000		240	ug/L	B2B0071	02/15/12	02/15/12	RSK-175/SOP325
Ethane		11		1.2	"	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			111 %	66.4-153%		"	"	"	
<i>Surrogate: Acetylene</i>			119 %	66.4-153%		B2B0071	02/15/12	02/15/12	
Lab ID: 1202034-12							Water - Sampled: 02/10/12 11:37		
Sample ID: HW16-P							Dissolved Gases by RSK-175		
Methane	RE1	380		3.9	ug/L	B2B0071	02/15/12	02/15/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325



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Project: Dimock Residential Groundwater

US EPA Region 3, Eastern Response Branch
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Stroudsburg PA, 18360

SDG: 12044A
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Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202034-12							Water - Sampled: 02/10/12 11:37		
Sample ID: HW16-P							Dissolved Gases by RSK-175		
Surrogate: Acetylene		117 %		66.4-153%		B2B0060	02/14/12	02/14/12	
Surrogate: Acetylene	RE1	116 %		66.4-153%		B2B0071	02/15/12	02/15/12	
Lab ID: 1202034-13							Water - Sampled: 02/10/12 11:22		
Sample ID: HW16z							Dissolved Gases by RSK-175		
Methane	RE1	26,000		190	ug/L	B2B0071	02/15/12	02/15/12	RSK-175/SOP325
Ethane		10		1.2	"	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene		112 %		66.4-153%		"	"	"	
Surrogate: Acetylene	RE1	116 %		66.4-153%		B2B0071	02/15/12	02/15/12	
Lab ID: 1202034-14							Water - Sampled: 02/10/12 07:20		
Sample ID: TB38							Dissolved Gases by RSK-175		
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene		117 %		66.4-153%		"	"	"	
Lab ID: 1202034-15							Water - Sampled: 02/10/12 14:08		
Sample ID: HW54							Dissolved Gases by RSK-175		
Methane		15		1.2	ug/L	B2B0060	02/14/12	02/15/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene		115 %		66.4-153%		"	"	"	
Lab ID: 1202034-16							Water - Sampled: 02/10/12 14:30		
Sample ID: HW54-P							Dissolved Gases by RSK-175		
Methane		4.5		1.2	ug/L	B2B0060	02/14/12	02/15/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene		116 %		66.4-153%		"	"	"	
Lab ID: 1202034-17							Water - Sampled: 02/10/12 10:00		
Sample ID: TB39							Dissolved Gases by RSK-175		
Methane		ND	U	1.2	ug/L	B2B0060	02/14/12	02/14/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
Surrogate: Acetylene		116 %		66.4-153%		"	"	"	



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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B2B0060 - RSK175 - Dissolved HC Gases

Prepared & Analyzed: 02/14/12
Dissolved Gases by RSK-175 - Quality Control

Blank (B2B0060-BLK1)

Methane	ND	U		1.2 ug/L						
Ethane	ND	U		1.2 "						
Ethene	ND	U		1.1 "						

Surrogate: Acetylene	76.9			"	66.5		116	66.4-153		
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LCS (B2B0060-BS1)

Methane	45.6			1.2 ug/L	44.1		103	70-130		
Ethane	90.2			1.2 "	83.2		108	77-137		
Ethene	84.5			1.1 "	78.3		108	78-138		

Surrogate: Acetylene	77.2			"	72.0		107	66.4-153		
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Matrix Spike (B2B0060-MS1)

Source: 1202034-05

Methane	46.9			1.2 ug/L	44.1	0.886	104	70-130	20	
Ethane	91.6			1.2 "	83.2	ND	110	70-130	20	
Ethene	85			1.1 "	78.3	ND	109	70-130	20	

Surrogate: Acetylene	78.2			"	72.0		108	66.4-153		
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Matrix Spike (B2B0060-MS2)

Source: 1202034-09

Methane	44.6			1.2 ug/L	44.1	ND	101	70-130	20	
Ethane	87.9			1.2 "	83.2	ND	106	70-130	20	
Ethene	82.5			1.1 "	78.3	ND	105	70-130	20	

Surrogate: Acetylene	76.0			"	72.0		105	66.4-153		
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Matrix Spike Dup (B2B0060-MSD1)

Source: 1202034-05

Methane	50.1			1.2 ug/L	44.1	0.886	112	70-130	7	20
Ethane	97.8			1.2 "	83.2	ND	118	70-130	7	20
Ethene	90.7			1.1 "	78.3	ND	116	70-130	6	20

Surrogate: Acetylene	80.2			"	72.0		111	66.4-153		
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Matrix Spike Dup (B2B0060-MSD2)

Source: 1202034-09

Methane	45.4			1.2 ug/L	44.1	ND	103	70-130	2	20
Ethane	89.5			1.2 "	83.2	ND	108	70-130	2	20
Ethene	84.3			1.1 "	78.3	ND	108	70-130	2	20

Surrogate: Acetylene	78.4			"	72.0		109	66.4-153		
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Batch B2B0071 - RSK175 - Dissolved HC Gases

Prepared & Analyzed: 02/15/12
Dissolved Gases by RSK-175 - Quality Control

Blank (B2B0071-BLK1)

Methane	ND	U		1.2 ug/L						
Ethane	ND	U		1.2 "						

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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B2B0071 - RSK175 - Dissolved HC Gases

Prepared & Analyzed: 02/15/12
Dissolved Gases by RSK-175 - Quality Control

Blank (B2B0071-BLK1)

Ethene	ND	U	1.1	"						
Surrogate: Acetylene	65.8			"	66.5		99	66.4-153		
LCS (B2B0071-BS1)										
Methane	41.7		1.2	ug/L	44.1		95	70-130		
Ethane	82.3		1.2	"	83.2		99	77-137		
Ethene	78.7		1.1	"	78.3		101	78-138		
Surrogate: Acetylene	77.1			"	72.0		107	66.4-153		



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Qualifiers and Comments

J The reported result for this analyte should be considered an estimated value.

C1 The reported concentration for this analyte is below the quantitation limit.

B1 The concentration of this analyte found in this sample was less than five times the concentration found in the associated method blank.

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.